

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	0	(nozzle cap\$3 tube pump roller phase leak ring plane bundl\$3).clm.	US-PGPUB; USPAT	AND	ON	2007/09/06 09:50
L2	0	(nozzle tube pump roller phase leak ring plane bundl\$3).clm.	US-PGPUB; USPAT	AND	ON	2007/09/06 09:50
L3	0	(nozzle cap\$3 tube pump roller phase leak ring plane).clm.	US-PGPUB; USPAT	AND	ON	2007/09/06 09:50
L4	0	(nozzle tube pump roller phase leak ring plane).clm.	US-PGPUB; USPAT	AND	ON	2007/09/06 09:50
L5	1	(nozzle tube pump roller leak ring plane).clm.	US-PGPUB; USPAT	AND	ON	2007/09/06 09:50
L6	2	(nozzle tube pump roller leak ring).clm.	US-PGPUB; USPAT	AND	ON	2007/09/06 09:50

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L1	0	(nozzle cap\$3 tube pump roller phase leak ring plane bundl\$3).clm.	US-PGPUB; USPAT	AND	ON	2007/09/06 09:50
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L5	1	(nozzle tube pump roller leak ring plane).clm.	US-PGPUB; USPAT	AND	ON	2007/09/06 09:50
L6	2	(nozzle tube pump roller leak ring).clm.	US-PGPUB; USPAT	AND	ON	2007/09/06 09:50
S1	737	347/30.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 10:31
S2	135	((tube with pump) same roller) and (sensor with (rotary rotational phase))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 10:15
S3	9	S1 and S2	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 10:11
S4	220	((tube with pump) same roller) and (sensor with (light))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 10:18
S5	10	S1 and S4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 10:16
S6	2216	((tube with pump)) and (sensor with (light))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 10:27
S7	25	S1 and S6	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 10:18
S8	2	("5670997"   "6406123").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/06/26 10:25
S9	1190	((tube with pump) and (roller cam)) and ((light photo) with detect\$4)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 10:33
S10	25	S1 and S9	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 10:31

## EAST Search History

S11	427	((tube with pump) same (roller cam)) and ((light photo) with detect\$4)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 10:34
S12	66783	"347"/\$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 10:33
S13	89	S11 and S12	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 10:33
S14	359	((tube with (roller cam)) same (pump)) and ((light photo) with detect\$4)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 10:34
S15	66	S12 and S14	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 10:35
S16	2	("5153613"   "5486854").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/06/26 10:39
S17	86	((sensor detector) with (light photo\$4)) same ((pump\$3 suct\$3) with (roller cam)) and tube	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 12:54
S18	66783	"347"/\$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 12:51
S19	19	S17 and S18	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 12:54
S20	1149	((sensor detector) with (light photo\$4)) and ((pump\$3 suct\$3) with (roller cam)) and tube	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 12:54
S21	198	S20 and S18	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 12:54
S22	179	S21 not S19	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 12:55
S23	2	("5917513").URPN.	USPAT	OR	ON	2006/06/26 12:59
S24	2	("5262804"   "5325111").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/06/26 13:05

## EAST Search History

S25	119	(tube near4 pump) same ((light photo) near4 (sensor detector))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 14:32
S26	66783	"347"/\$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 15:32
S27	3	S25 and S26	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 14:31
S28	182	(tube near4 pump) same ((light photo) with (sensor detector))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 14:36
S29	63	S28 not S25	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 14:32
S30	1189	(tube near4 pump) and S26	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 14:37
S31	536	S30 and sensor	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 14:37
S32	1452	(tube near4 pump) and (sensor with (light photo))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 14:40
S33	210	S26 and S32	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 14:38
S34	2625	((tube reciprocat\$3) with pump) and (sensor with (light photo))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 14:51
S35	293	S26 and S34	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 14:41
S36	83	S35 not S33	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 14:47

## EAST Search History

S37	1393	(eccentric with roller) same pump	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 14:47
S38	17	S26 and S37	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 14:47
S39	1718	((tube reciprocat\$3) with pump) and (sensor with (rotary rotational phase))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 14:51
S40	111	S26 and S39	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 14:51
S41	6	("4947191"   "5359355"   "5627571"   "5903287"   "6042216"   "6062670").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/06/26 14:54
S42	1	("5831644").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/06/26 14:57
S43	6	("5505264"   "5679218"   "5785817"   "6267465"   "6409883"   "6432272").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/06/26 14:58
S44	11	("3876340"   "4313124"   "4345262"   "4459600"   "4463359"   "4558333"   "4723129"   "4740796"   "4834630"   "4997347"   "5138343").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2006/06/26 15:23
S45	9	("4997347").URPN.	USPAT	OR	ON	2006/06/26 15:31
S46	1	"6817705".pn.	USPAT	OR	ON	2006/06/26 15:32
S47	1453	(peristaltic with pump) same sensor	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 15:34
S48	8	S26 and S47	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 15:33
S49	1804	(peristaltic with pump) and (sensor with (optical light photo))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/05 14:57
S50	20	S26 and S49	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/26 15:34
S51	1	(sensor with (light near4 (emitter and receiver))) same (notch and (rotational radial))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/06/27 09:06

## EAST Search History

S52	2	"6523414".pn.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/03/23 14:27
S53	21	("4244365"   "4322978"   "4322979"   "4554837"   "4555949"   "4612810"   "4631529"   "4762518"   "4829448"   "4833918"   "4908676"   "4920336"   "5098380"   "5260665"   "5305237"   "5445622"   "5741216"   "5853386"   "5935106"   "5983725"   "6290681").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/03/23 14:10
S54	245	((SHIMIZU with YOSHIAKI) (TAKAHASHI with NOBUHITO) (TAKAHASHI with MASARU)).in. and (seiko with epson).as.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/03/23 14:29
S55	149	S54 and (ink with jet)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/03/23 14:29
S56	22912	(((peristaltic rota\$4 tub\$3) with pump)) and (clock\$3wise (counter near3 clock\$3wise))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/05 15:00
S57	2380	347/22,29,30,36.ccis.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/05 15:01
S58	72617	"347"/\$.ccis.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/05 15:01
S59	146	S56 and S57	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/05 15:01
S60	5	("5897300") or ("2899905") or ("2988001") or ("5340290") or ("2102523")).PN.	US-PGPUB; USPAT	OR	OFF	2007/09/06 08:02
S61	76	((HARADA with SHUHEI).in. (KUWADA with SHOZO).in.) and epson.as.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/06 08:12
S62	41	S61 and (tube with pump)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/06 08:04
S63	8	("2102523"   "2899905"   "2988001"   "5340290"   "5897300").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/06 08:07
S64	252	((TAKAHASHI with MASARU ).in. (TAKAHASHI with NOBUHITO ).in.(SHIMIZU with YOSHIAKI ).in.) and epson.as.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/06 08:13

## EAST Search History

S65	66	tube near4 pump and S64	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/06 08:20
S66	7	("6,772,761" or ("5,358,011") or ("6,164,767") or ("6,203,295") or ("5,113,717") or ("2,314,281") or ("6,024,433")).PN.	USPAT	OR	OFF	2007/09/06 08:20
S67	22917	(((peristaltic rota\$4 tub\$3) with pump)) and (clock\$3wise (counter near3 clock\$3wise))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/06 08:24
S68	2381	347/22,29,30,36.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/06 08:54
S69	146	S67 and S68	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/06 08:24
S70	487	(((peristaltic rota\$4 tub\$3) near3 pump)) and S68	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/06 08:54
S71	72670	"347"/\$.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/06 08:54
S72	1598	(((peristaltic rota\$4 tub\$3) near3 pump)) and S71	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/06 08:54
S73	1111	S72 not S70	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/06 08:57
S74	1460	417/477.1,477.6,477.7,477,12.ccls.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/06 08:58
S75	5	S74 and (ink with jet)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/06 09:31
S76	61	S74 and (print\$3)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/06 09:32
S77	8	("2102523"   "2899905"   "2988001"   "5340290"   "5897300").PN.	US-PGPUB; USPAT; USOCR	OR	ON	2007/09/06 09:36

## EAST Search History

S78	2	jp-2003101868-\$.did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/09/06 09:36
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